

2001. This response is being filed within the first month after the expiry of the three-month shortened statutory period set in the office action. A separate petition and fee for a one-month extension of time, which resets the due date to August 5, 2001 is filed herewith. Please charge any other fee that is due in connection with this response, and credit any overpayment, to deposit account no. 50-0573.

AMENDMENT

Please amend the application, without prejudice, as follows:

In the claims:

Cancel claims 1-18. Insert the following new claims:

19. A method of generating a magnetic field moving in at least one magnetic field plane located in a given medium and in which the vector product of the intensity of the magnetic field by its natural displacement velocity creates stereochemical deformations in the molecules of said given medium, comprising the steps of:

generating a first magnetic field and a second magnetic field placed in each magnetic field plane, the directions of said first and second magnetic fields subtending between them a predefined angle; and

varying the amplitude of at least one of said first and second magnetic fields over time in such a manner that the resultant of said first and second magnetic fields is a magnetic field moving in said field plane having an amplitude which is variable over time and a direction moving at a variable angular velocity so as to obtain as high a gradient as possible of said vector product.

20. A method according to claim 19, further comprising the steps of:

providing a permanent magnet or a pair of permanent magnets and generating said first magnetic field by means of said permanent magnet or pair of permanent magnets;

providing a coil or a pair of coils and applying a current to said coil or pair of coils to generate said second magnetic field; and

varying the intensity of said current over time so that the resultant magnetic field is a moving magnetic field oscillating between two positions corresponding to the two maximum values, in absolute value, of the intensity flowing through the coil or pair of coils.

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21. A method according to claim 19, further comprising the steps of:
providing a coil or a pair of coils and applying a current to said coil or pair of coils to generate said first magnetic field;
providing a coil or a pair of coils and applying a current to said coil or pair of coils to generate said second magnetic field; and
varying the intensities and frequencies of said currents over time independently of one another.

22. A method according to claim 19, further comprising the steps of:
providing a coil or a pair of coils and applying a current to said coil or pair of coils to generate said first magnetic field; and
providing a coil or a pair of coils and applying a current to said coil or pair of coils to generate said second magnetic field; and
wherein said currents are sinusoidal currents of the same frequency but of different amplitudes, and shifted in phase by 90° .

23. A method according to claim 19, further comprising the steps of:
providing a coil or a pair of coils and applying a current to said coil or pair of coils to generate said first magnetic field; and
providing a coil or a pair of coils and applying a current to said coil or pair of coils to generate said second magnetic field; and
wherein said currents are sinusoidal currents of the same amplitude but of different frequencies.

24. A method according to claim 19, in which said given medium is a fluid flowing through a pipe, comprising the step of generating said first and second magnetic field by means disposed on the exterior of said pipe.

25. A method according to claim 24, in which said at least one magnetic field plane forms an angle of between 45° and 90° with the direction of flow of the fluid to be treated.

26. A method according to claim 19, in which said given medium is a fluid flowing through a pipe, comprising the step of generating said first and second magnetic field by means disposed inside said pipe.

27. A method according to claim 26, in which said at least one magnetic field plane forms an angle of between 45° and 90° with the direction of flow of the fluid to be treated.

28. A method according to claim 19, comprising the steps of generating first and second magnetic fields in several parallel magnetic field planes.

29. A method according to claim 19, comprising the step of generating a magnetic field of variable amplitude by means of a pair of coils having a core of a ferromagnetic substance to close the magnetic fields generated by said coils, said core optionally being U-shaped, in which case the magnetic field generated occurs in two parallel planes, or E-shaped in which case the magnetic field generated occurs in three parallel planes.

30. A method according to claim 19, in which said given medium is a limestone water, the application of the magnetic field generated preventing the deposit of limestone incrustations on the walls of pipes, boilers, etc.

31. A method according to claim 19, in which said given medium is a fuel for a heat engine, the application of the magnetic field generated enabling said fuel to enhance and improve combustion efficiency.

32. A method of creating stereochemical deformations in the molecules of a medium, comprising the steps of:

generating a first magnetic field;

generating a second magnetic field, lying in the same magnetic field plane as said first magnetic field and subtending with said first magnetic field a predefined angle; and

varying the amplitude of at least one of said first and second magnetic fields over time in such a manner that the resultant of said first and second magnetic fields is a magnetic field moving in said field plane having an amplitude which is variable over time and having a direction moving at a variable angular velocity, so that said vector product varies over time;

wherein the magnetic field creates stereochemical deformations in the molecules of said medium in dependence on the vector product of the intensity of the magnetic field by its velocity.

33. A method according to claim 32, comprising the steps of:
providing a permanent magnet or a pair of permanent magnets;
generating said first magnetic field with said permanent magnet or pair of permanent magnets;

providing a coil or a pair of coils
generating said second magnetic field by applying a current to said coil or pair of coils; and

varying the intensity of said current over time so that said resultant magnetic field is a moving magnetic field oscillating between two positions corresponding to two maxima of the absolute value of said current.

34. A method according to claim 32, comprising the steps of:
providing a first coil or pair of coils;
generating said first magnetic field by applying a first current to said first coil or pair of coils;

providing a second coil or pair of coils
generating said second magnetic field by applying a second current to said second coil or pair of coils; and

varying the magnitudes or frequencies of said first and second currents in such a manner that they bear no relation to each other.

35. A method according to claim 34, comprising the step of applying sinusoidal currents of the same frequency but different amplitudes and 90° apart in phase as said first and second currents.

36. A method according to claim 34, comprising the step of applying sinusoidal currents of the same amplitude but different frequencies as said first and second currents.

37. A method according to claim 32, wherein said medium is a fluid flowing through a pipe, comprising generating said first and second magnetic fields in a magnetic field plane that forms an angle of between 45° and 90° with the direction of flow of said fluid.